

Application Serial No: 10/598,903
Responsive to the Office Action mailed on: August 15, 2008

REMARKS

This Amendment is in response to the Office Action mailed on August 15, 2008. Claim 1 is amended and is supported, for example, in the specification at page 9, lines 24-27. No new matter is added. Claims 1 and 8 are pending, with claims 2-6 being withdrawn.

§103 Rejections:

Claims 1 and 8 are rejected as being over Osamu (JP No. 2001-326879) in view of Toshimitsu (JP No. 11-284113) and further in view of Narayan (US Patent No. 5,721,602). Applicants respectfully traverse this rejection.

Claim 1 is directed to a driver module structure that requires, among other features, a flexible circuit board provided with a wiring pattern that has a cavity that exposes a portion of a ground wiring pattern. Claim 1 further requires that the exposed portion of the ground wiring pattern and a heat-radiating member are connected to establish electrical continuity via a member that is fitted into the cavity. The cavity is a through hole penetrating the ground wiring pattern, a portion of the ground wiring pattern on an opposite side from the heat-radiating member is exposed, and a member fitted into the cavity is an electrically conductive screw that fastens the flexible circuit board and the heat-radiating member and provides electrical continuity between the exposed portion of the ground wiring pattern and the heat-radiating member.

The combination of Osamu, Toshimitsu and Narayan does not teach or suggest these features. The rejection relies on Figure 4 of Narayan for teaching a screw for fastening a flexible circuit board and a heat-radiating member. Figure 4 of Narayan teaches a reflective liquid crystal display element that includes a heat sink 30 coupled to a substrate holder 20 and a wiring board 40 that is mounted on the substrate holder 20 with coupling screws 34. However, as shown in Figure 4 of Narayan, the coupling screws 34 merely fasten the wiring board 40 to the substrate 20 and do not come in contact with the heat sink 30. Moreover, nowhere does Narayan suggest that the coupling screws 34 establish an electrical continuity between the wiring board 40 and the heat sink 30. Accordingly, nowhere does Narayan teach or suggest an electrically conductive screw that fastens the flexible circuit board and the heat-radiating member and provides

Application Serial No: 10/598,903
Responsive to the Office Action mailed on: August 15, 2008

electrical continuity between the exposed portion of the ground wiring pattern and the heat-radiating member.

Osamu nor Toshimitsu overcome these deficiencies of Narayan. Toshimitsu is directed to a heat radiation mechanism for semiconductor integrated device that has a heat sink (20) connected to a circuit board (30) via legs (21) that protrude from the heat sink (20) (see Figure 1 of Toshimitsu). Osamu is directed to a display driver that uses a projection (15) of a metallic plate (13) to fit into a recess of a flexible board (11). The recess penetrates a coverlay (17), but does not penetrate the copper pattern (16). For at least these reasons claim 1 is not suggested by the combination of Osamu, Toshimitsu and Narayan and should be allowed. Claim 8 depends from claim 1 and should be allowed for at least the same reasons.

Conclusion:

Applicants respectfully assert that claims 1 and 8 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.



Dated: December 15, 2008

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER &
LARSON, P.C.
P.O. Box 2902-0902
Minneapolis, MN 55402-0902
(612) 455-3800

By: _____

Douglas P. Mueller
Reg. No. 30,300
DPM/ahk